



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/527,579

03/11/2005

Andreas Loew

PD020089

7288

24498

7590

09/10/2009

Thomson Licensing LLC

P.O. Box 5312

Two Independence Way

PRINCETON, NJ 08543-5312

EXAMINER

REINIER, BARBARA DIANE

ART UNIT

PAPER NUMBER

2625

MAIL DATE

DELIVERY MODE

09/10/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/527,579	Applicant(s) LOEW, ANDREAS	
	Examiner Barbara D. Reinier	Art Unit 2625	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 July 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 15-26, 28, 29 and 32-34 is/are pending in the application.
- 4a) Of the above claim(s) 1-14, 27, 30, 31 and 35 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 15-26, 28, 29 and 32-34 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--------------------------------------------------------------------------------------|-------------------------------------------------------------------|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

1. The Examiner wishes to thank the Applicant for remarks dated 7/20/2009.
2. Applicant's arguments, see page 5, filed 7/20/2009, with respect to claim 26 have been fully considered and are persuasive. The objection of claim 26 has been withdrawn.
3. Applicant's arguments, see page 5, filed 7/20/2009, with respect to claim 27 have been fully considered and are persuasive. The objection and rejection of the now canceled claim 27 has been withdrawn.
4. The Examiner notes that claim 35 has been removed. The Applicant did not mention its disposition in the remarks. The remarks in paragraph 1 of page 5 only indicate claims 15-26, 28, 29 and 32-34. Therefore, the Examiner takes the position that claim 35 has also been canceled.
5. Applicant's arguments filed 7/20/2009 have been fully considered but they are not persuasive. The Examiner respectfully disagrees with the Applicant that the limitations as currently presented are not met by Rai et al (US 6,337,692). Although the Applicant asserts that their invention of the instant application is drawn to another functional area taught by Rai, the claims presented only require a "matrix through which the color video signals pass to control portions of the three primary colors (RGB) ... the matrix consisting of nine (9) multipliers and three (3) adders." Rai does teach this limitation since the matrix depicted in Figure 13B receives RGB input and outputs a

Art Unit: 2625

corrected color value of R'G'B' (col. 30 lines 15-27) and as further cited in the rejection that follows. Although the Applicant points out that additional circuitry (Alpha Mixer 1230) is used, it is not germane to the limitations of the current claims of the instant application.

6. With regards to the Applicant's suggestion that Rai et al "teaches away" from the use of the nine (9) multipliers and three (3) adders, the Examiner respectfully disagrees. Although Rai et al does state that " it is advantageous to replace multipliers with adders or subtracters when possible (col. 30 lines 54-55)," this is stated in regards to the mixing circuits shown in Figure 13A. The limitation of "when possible" is subjective based on the design limitations or choices and does not in anyway suggest not using the nine multipliers and three adders for the correction matrix as shown in Figure 13B. Just because "the prior art's mere disclosure of more than one alternative does not constitute a teaching away from any of these alternatives because such disclosure does not criticize, discredit, or otherwise discourage the solution claimed (See MPEP 2143.01)." Furthermore, since the mixer circuits are not germane to the limitations of the instant application, there configuration is a moot point.

7. Claim 32 rejection is maintained by virtue of its dependency on claim 15. Bestmann is not relied upon for teaching nine (9) multipliers and three (3) adders in the correction circuit but for using logarithmic compensation in a circuit. In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on

Art Unit: 2625

combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

8. Therefore, the Examiner maintains the prior rejection of claims 15-26, 28, 29 and 32-34.

Claim Rejections - 35 USC § 102

9. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –
(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

10. Claims 15-26, 28, 29 and 33-35 are rejected under 35 U.S.C. 102(e) as being anticipated by Rai et al (US 6,337,692).

Regarding claim 15: Rai teaches an apparatus (**system**) for correcting color video signals (**col. 1 lines 14-16**), comprising: a matrix (**T-matrix, col. 18 lines 24-29**), through which the color video signals pass to control the proportions of three primary colors in matrixed color value signals (**RGB, col. 17 lines 47-50**), means for controlling the matrix as a function of hue of the color video signals (**col. 18 lines 2-4 & lines 17-19**) respectively, and means for controlling the matrix as a function of color saturation (**col. 18 lines 2-4 & lines 37-39**); wherein the matrix comprises nine multipliers and three adders, wherein three of the nine multipliers are connected to one adder, respectively (**as shown by the T-Matrix multiplication circuit 1306 of Figure 13B**).

Regarding claim 16: Rai teaches an apparatus further comprising memories for storing coefficients of the matrix (**LUT in memory**) that are set as a function of hue of the color video signals (**step 910 of Figure 9, col. 27 lines 28-30**).

Regarding claim 17: Rai teaches an apparatus further comprising memories for storing correction values for the coefficients of the matrix (**memory for maintaining the correction LUT, col. 30 lines 15-18**), wherein the correction values are set as a function of hue of the color video signals (**col. 30 lines 8-10**).

Regarding claims 18 and 19: Rai teaches an apparatus further comprising a converter (**col. 13 lines 62-65**) for generating a hue signal (**hue ramp 1222 of Figure 12**) from the color video signals (**col. 7 lines 10-14 & col. 17 lines 47-60**), the hue signal connected to inputs of the memories (**LUT 1216 of Figure 12, col. 29 lines 46-54**).

Regarding claims 20 and 21: Rai teaches an apparatus wherein the converter (**col. 13 lines 62-65**) generates a color saturation signal (**saturation ramp 1224 of Figure 12**) supplied to multipliers located in the supply lines of the correction values to the matrix (**col. 13 lines 42-60**).

Regarding claims 22-25: Rai teaches an apparatus wherein the color video signals are provided as color value signals, wherein the converter comprises a converter matrix for

Art Unit: 2625

generating color difference signals (**RY and BY, col. 10 lines 59-67 – col. 11 lines 1-2**) and a coordinate converter (**col. 25 lines 60-64**).

Regarding claims 26, 33 and 34: Rai teaches an apparatus wherein one of the memories (**correction values from any or all of LUTs 1216, 1218 and 1220 of Figure 12, col. 30 lines 8-10**) supplies a correction coefficient to a respective one of the multipliers (**col. 13 lines 42-60**).

Regarding claim 28: Rai teaches an apparatus according to Claim 16, further comprising a computer for loading the correction values into the memories, and the means for controlling the matrix having a program on a computer readable medium for setting the correction values (**col. 5 lines 21-28**).

Regarding claim 29: Rai teaches an apparatus according to Claim 28, comprising a device for the manual setting of the correction values (**col. 13 lines 65-67**).

Claim Rejections - 35 USC § 103

11. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Art Unit: 2625

12. Claim 32 is rejected under 35 U.S.C. 103(a) as being unpatentable over Rai et al (US 6,337,692) in view of Bestmann (US 6,433,898).

Regarding claim 32: Rai does not explicitly teach using logarithmizers connected upstream of the matrix and delogarithmizers connected downstream of the matrix.

Bestmann teaches using logarithmizers connected upstream of the matrix (**col. 2 lines 23-27 & col. 6 lines 41-44**) and delogarithmizers are connected downstream of the matrix (**col. 2 lines 30-31 & col. 7 lines 64-67**).

Rai and Bestmann are combinable because they are from the field of endeavor in image processing (“*Electronic image processing is composed essentially of the steps of image input, image processing and image output.*” Bestmann col. 1 lines 11-13).

At the time of the invention, it would be obvious to one of ordinary skill in the art to refine the image correcting capabilities as taught by Rai by introducing the logarithmic compensation for density as taught by Bestmann.

The motivation to do so would to allow for compensating for various film densities to be taken into consideration when processing the image for output (Bestmann col. 6 lines 33-67 – col. 7 lines 1-67).

Therefore, it would have been obvious to combine Rai and Bestmann to obtain the invention as specified in claim 32.

Conclusion

13. THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Barbara D. Reinier whose telephone number is (571)270-5082. The examiner can normally be reached on M-Th, 8am-4pm Eastern.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Haskins L. Twyler can be reached on 571-272-7406. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2625

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Barbara D Reinier
Examiner
Art Unit 2625

/Barbara D Reinier/
Examiner, Art Unit 2625

/Mark K Zimmerman/
Supervisory Patent Examiner, Art Unit 2625